More recently the Government have issued guideliens for rationalization of restrictions on felling and transit regulations for trees, species grown on non-forest private lands. The promotion and strengthening of the Joint Forest Management Committees (JFMCs) across the country is also intended to safeguard biodiversity through people's empowerment and involvement. At policy level, the Biological Diversity Act, 2002 has been passed, and the National Biodiversity Authority has been established to regulate access to genetic resources and associated traditional knowledge. The process of setting up of State Biodiversity Boards by States and Biodiversity Management Committees by local bodies is also on.

Tourist attractions near sanctuaries

548. SHRI S.M. LALJAN BASHA: Will the Minister of ENVIRONMENT AND FORESTS be pleased to state:

(a) whether it is a fact that a large number of sanctuaries have huge hotels and other tourist attractions on their borders and periphery;

(b) if so, whether any study has been done on the need to limit tourism near or through such sanctuaries;

(c) whether any limit has been placed on the number of people to visit such sanctuaries on any given day;

(d) the studies done on the negative impact of tourism on game sanctuaries; and

(e) the steps proposed to ensure that animals and fauna do not become extinct due to large influx of tourists and visitors in sanctuaries?

THE MINISTER OF STATE IN THE MINISTRY OF ENVIRONMENT AND FORESTS (SHRI NAMO NARAIN MEENA): (a) Yes, Sir. Some Protected Areas have hotels and tourist attractions on their borders.

(b) to (e) Time and again, the Ministry has constituted expert groups and commissioned studies to regulate tourism in Protected Areas. The recent guidelines in this regard are at Statement-I and II.

Statement-I

Revised guidelines for Wildlife Tourism (1998)

In pursuance of the decision taken in the Meeting of the Standing Committee of the Indian Board for Wildlife held on 5.11.97, a Committee

was formed to further develop and revise the guidelines for wildlife tourism which had been developed in 1994. The Constitution of the Committee was as follows:

1.	Dr. M.K. Ranjitsinh	Chairperson
2.	Shri D.S. Chavda	Member
3.	Shri Mahender Vyas	Member
4.	Shri C.R.V. Rao	Member
5.	Shri Surender Kumar	Member

The Committee met on 30th Jan. and 18th Feb., 99. Shri C.R.V. Rao, Deputy Director General, Ministry of Tourism, attended the second meeting only. The Committee drew up the following report regarding wildlife tourism.

1. Rationale for policy on wildlife tourism

The Committee felt that the foremost and the basic principle to govern wildlife tourism should be that the Protected Areas are not for tourism but tourism must be for Protected Areas. Primacy of conservation over commerce should be the guiding force in drawing a tourism plan for any protected area.

It should be noted that the tourism must complement and be subservient to conservation and it should in no way pose a threat to or be derogatory to the conservation efforts of the country in general and the Protected Areas, in particular. However, it is also to be noted that tourism can be a potent force to help conserve the protected area and this must be taken advantage of. In the development of wildlife tourism the emphasis should be on the inculcation of conservation values, empathy for animals and communion with nature and not merely a satisfaction of curiosity with the mega species nor should it become mere picnic jaunts. While direct tourism management by the park authorities may not be feasible and would also be a drain on time and other resources of the park authorities, however they should have a final say in all matters relating to tourism in the park.

It has been observed that the areas which are most frequently visited by tourists also happen to be the areas which offer best wildlife viewing.

This may partly be due to tourists going to the best wildlife areas of the Protected Area but is also a fact that tourist movement provides protection leading to increase in wildlife. Therefore properly regulated tourism can and should play a positive role in ensuring long term survival of the wildlife.

The Committee also noted that there should be harmony between the Wildlife Action Plan of the country, which is under revision, with the revised guidelines on tourism. Similarly, the Wildlife (Protection) Act which is in process of being amended should also be consistent with these.

Revised Guidelines:

1. Each Protected area must have its own tourism plan in a certain time frame, say one year, the essence of which should also find place in the overall management plan of the Protected Area. The Plan should clearly indicate the area open to tourism and closed to tourism. For any sizeable Protected Area, particularly those where tourist pressure is high, steps should be taken to alleviate tourist pressure by developing Satellite tourism zones, preferably in the buffer areas. If this is not feasible to develop in a reasonable period of time, certain areas could be earmarked within existing protected areas, preferably on the periphery so that visit to these areas will lead to better protection and, therefore, enhancement of wildlife.

Not only are our protected areas rather small in size but the problem is further compounded by the over-connection of tourists in small pockets within these protected areas, mainly in relation to the presence of mega species. This has to be curbed and a more equitable distribution of tourists is to be achieved.

As it is observed that there is a concentration of tourists only in a certain part of the year, measures should also be taken to distribute the tourists pressure by offering incentives during the off-season when the protected area is still open for the visitors.

2. The core area of the protected areas should be clearly demarcated and protected as a Sanctum-sanctorum. No tourism at all should be allowed in this zone. However, permission to visit these "off limit" areas should be given to research workers and wildlife experts in the larger interests of the protected area after due consideration by the authorities. Special and distinct passes should be issued for this purpose.

3. There should be a ceiling on the number of visitors allowed to enter a protected area at any time of the given part of the year. This number has to be determined by the Park authorities in terms of carrying capacity, available facilities, transport and guides. The most effective method to achieve this objective would be by restricting both the number of vehicles entering a protected area and the number of vehicles permitted to visit a special area within that protected area at a given time. This aspect which is already in vogue is some areas of India and abroad will have to have a much wider application in our protected areas.

4. To avoid large number of tourists staying inside the forest, day-trippers should be allowed inside the protected areas but they should not be permitted "picnics" which could result in danger to the tourists, disturbance to wildlife littering, fires and other hazards to the habitat. Routes of day-trippers should pre-determined and may need to be somewhat different from overnight visitors to avoid interest clashed.

The area where visitors can get off from their vehicles should be specially earmarked with signboards.

Day-trippers and other tourists should be able to obtain permits in advance to prevent rush at the entry points.

5. An interpretation centre adequately equipped with maps, guides, books and audio-visual aids should be set up at the entrance so as to provide nature education and proper orientation to visitors. This will also enable the visitors to develop the right attitude before they enter the protected areas. However, trained personnel should be provided at the visitors centre failing which the centre may end up as a static facility.

Check lists of flora and fauna including avi-fauna should be prepared and made available to the visitors at a suitable price.

6. It is observed that the guidelines, norms and rules are mainly flouted by the public servants and agencies. This has to be overcome both in the interest of the Park authorities as well as for the purpose of fairness and equity. Normal rules and rates for accommodation, vehicle etc. must apply to all such visitors who visit the park except for the officials involved with the management of the park.

7. Cooking of meals or carrying of transistors, musical instruments, loudspeakers or any arms or weapons inside the sanctuary by any visitor inside the protected area should be strictly prohibited.

8. As tourism is now being recognized as an industry and is one of the fastest growing sector of the economy; Environment Impact Assessment (EIA) of the more important protected areas should be undertaken from the viewpoint of impact of tourism.

9. All new accommodation for the tourists including related infrastructure as cafeteria, shops etc. must be located outside the protected area. Such new accommodation etc. should be in a corner of the buffer area in a wild setting with natural surroundings around, the design and ambience should reflect the concerns of authentic wildlife tourism. Similarly expansion of existing accommodation and other tourist facilities within the protected area should not be permitted.

10. The motorized conveyance used should be low noise and should also carrying Pollution Under Control Certificate (PUC). Even cyclists and trekking in small groups should be allowed on approved routes in designated areas of buffer zones where there is no danger from carnivores and wild elephants. Vehicles should not be allowed to drive off the designates trekkers and the visitors traveling in them should step out only in certain designated places. Tarring and even re-tarring of roads should not be allowed inside the protected area.

11. Entry of tourists to the protected areas including the vehicles will have to be on payment of required fees which should have a graded structure, the highest being for the foreign tourists and the lowest for the students. A brochure containing the map of the protected area and a list of dos and don'ts inside the park should be given with the entry permit and the cost recovered.

12. All revenues from the protected area must be ploughed back and should not accrue to the State exchequer. Provision should also be made for setting up of donation boxes clearly indicating that the money so obtained would be used for the betterment of the park and for the welfare of the park staff/local inhabitants.

13. Rates for use of cameras for photography inside the protected areas should be drawn up in a rational manner so that it does not discourage the wildlife lovers to visit the protected areas and document their observation. The rates for use of cameras for commercial purpose should be much higher than the personal photography taken by individuals for the remembrance of their visit.

14. The tourist guides and tour operators should be given adequate orientation and training programme so that they are able to pass on correct information and an appropriate value system to the customers they guide. Very often the tourists behave in a manner detrimental to conservation because they are not properly briefed about the "Dos and Don'ts" or even sometimes wrongly briefed about some exciting incidents.

The nature guides would have to obtain a permit from the park authorities which would be periodically renewed based on the performance of the guides. The local people should be encouraged and trained to perform as nature guides, however under no circumstances the park staff should be used as guides. The fee that should be payable to the guides should also be fixed by the Park authorities.

15. Small controlled educational camps may also be organized in earmarked areas outside of the sanctuary or national park for staying in tents with a strict code of conduct for occupation of such tents and maintenance of camping sites.

16. All tourism structures that come up in the fringe of the protected areas or in the periphery should blend in with the surroundings, be moderately priced, clean and wholesome. This is necessary to offer as "near to nature" an experience to visitors as possible.

17. In certain protected areas government may consider declaring "No development zone" under the Environment (Protection) Act, where development, including tourism is likely to create an adverse impact.

18. The water and energy needs of a protected area should be met from outside. Use of non polluting alternative energy sources should be encouraged. Use of fuel wood should be prohibited in all tourist facilities, including private.

19. It should be ensured that the visitors do not dispose of non biodegradable waste inside the protected area. Even otherwise proper arrangement should exist for the disposal of all the garbage.

20. Surrounding and chivying of the wild animals by vehicles and elephants which lead to stress for the animals should not be allowed.

21. In many of the Protected Areas places of worship and reverence exist which are visited by large number of people. Steps should be taken

to ensure that commerce does not take precedence here as this would neither be in the interest of conservation nor in maintaining the sanctity and tranquility of the place of worship. Efforts should also be made to mitigate the impact of pilgrims in consultation with the management of the religious places.

No new places of worship should be allowed to come up nor expansion of existing places should be allowed inside the protected areas.

Statement II

Regulation of Tourist Visitation in Tiger Reserves Dated: 9th April, 2003

F.No. PS(DIR)—PT

To,

Field Director
(All Tiger Reserves)

SUBJECT: Regulation of Tourist Visitation in Tiger Reserves

Sir,

As you are aware, there is considerable tourist influx (both inland and foreign) in many of our Protected Areas and Tiger Reserves, which necessitate regulation of such visitation in the interest of minimizing the biotic disturbance to wild animals and their habitat. It must be borne in mind, ecotourism should be fostered in the right perspective in these areas, so that there is no compromise or trade-off in wildlife interests, since our Tiger Reserves are ecotypical repositories of valuable gene pool. Hence, the following may be ensured in this regard:

- The tourist visitation should be regulated as per the carrying capacity of the area.

- In place of open gypsies and smaller vehicles, medium sized buses, with a closed body and sliding windows, may be used for park excursions. This will minimize the risk of close encounters with wild

animals, apart from reducing the number of vehicles inside the park at any point in time.

- A minimum mandatory distance of at least 500 meters should be maintained between two vehicles plying on the same road.

- A minimum mandatory distance of 30 meters should be maintained by tourist vehicles while spotting a tiger or any other wild animal.

- The route guides should be more professionally trained and penalty should be imposed on visitors in case they violate park rules.

Further, a model calculation of the Tourist Carrying Capacity is also appended for ready reference, which is fairly robust and can be computed in a site-specific manner by collecting some basic field data. It is requested, this computation may please be done for your Reserve and this Ministry may be apprised accordingly. Since a certain amount of risk is always involved in jungle excursions despite all precautions, a standardized 'Indemnity Bond' may also be prescribed indemnifying the park authorities from litigation/arbitration which may arise on account of accidents suffered by tourists during park round. All due formalities in this regard may be completed before the tourists are allowed entry into the Tiger Reserve. Under no circumstances tourist excursions should be allowed during the night. It goes without saying, apart from causing immense disturbance to wild animals, such ventures are extremely risky. It is also reiterated, no tourist facilities should be created in the 'core Zone' of a Tiger Reserve.

Yours Sincerely,
Dr. Rajesh Gopal
(IGF & DIRECTOR, PT)

Copy to: All Chief Wildlife Wardens

MODEL CALCULATION
KANHA TIGER RESERVE

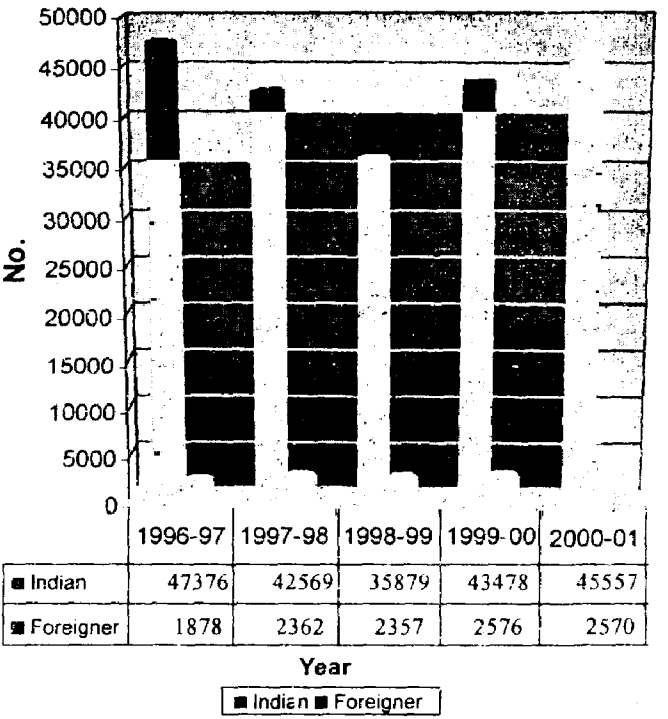
(a) Visitation Data

Average of last 5 years)

Visitors (Indian)	:	42971.8
Visitors (Foreign)	:	2348.6
Total :		**45320.4**

Number of tourist vehicles per day (average) = 50

Total No. of Tourists Visiting in the Park (During the last 5 years)



(b) Carrying Capacity Computation

i. Physical Carrying Capacity (PCC)

PCC = A x v/a x Rf

- ✓ Only vehicular movements permitted on forest roads, hence road length is more relevant than area
- ✓ "Standing area" is not relevant, but closeness between vehicles is important
- ✓ There is a required distance of at least 500 m.(½ km.) between 2 vehicles to avoid dust (2 vehicles/km.)
- ✓ At least 3-1/2 K.m. hours are needed for a single visit
- ✓ The PA is open to tourists for 9 months in a year and 9 hours per day
- ✓ Linear road length (for tourists)=283 km.

$$\text{Rotation Factor (Rf)} = \frac{9 \text{ hours}}{3.5 \text{ hours}} = 2.6$$

PCC = 283 km. x 2 vehicles/km. x 2.6
= 1471.6 or 1472 visits/day

ii. Real Carrying Capacity (RCC)

☞ Road Erosion

Total Road Length=283 km. (Mt.)

Medium erosion risk=50 km. (weightage factor=2)

High erosion risk=40 km. (weightage factor=3)

M1=50 x 2 + 40 x 3 = 100+120=220 km,.

$$Cf_e = \frac{220}{283} \times 100 = 77.8 \text{ or } 78\%$$

☞ Disturbance to Wildlife

Barasingha (1 month)	= Cf_1	= 1/9 x 100 = 11.1%
Chital (2 months)	= Cf_2	= 2/9 x 100 = 22.2%
Tiger (2 months)	= Cf_3	= 2/9 x 100 = 22.2%

Overall corrective factor for disturbance of wildlife in Kanha National Park = $Cfw=Cf_1+Cf_2+Cf_3=11.1+22.2+22.2=55.5$ or 55%

☞ Temporary closing of sites

$$Cft = \frac{\text{2 limiting weeks / year}}{\text{36 weeks/year}} \times 100 = 5.5\%$$

$$RCC = PCC \times \frac{100-Cf_e}{100} \times \frac{100-Cf_w}{100} \times \frac{100-Cf_t}{100}$$

$$1472 \times \frac{100-78}{100} \times \frac{100-55}{100} \times \frac{100-5.5}{100}$$

1472 (0.22 x 0.45 x 0.95)
138.4 or 138 visits / day

iii. Effective Permissible Carrying Capacity

(MC=Managerial Capacity=40%)

EPCC=RCC x MC

138 x 0.40 = 55.2 or 55 vehicles / day

Codification of problems of tiger reserves

549. SHRI R. KAMARAJ: Will the Minister ENVIRONMENT AND FORESTS be pleased to state:

(a) whether it is a fact that government had decided to codify the problems of tiger reserves in the country;